



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/287,190 04/06/99 ASANO

M DAIN:496

EXAMINER

MMC2/0815

PARKHURST & WENDEL LLP  
1421 PRINCE STREET  
SUITE 210  
ALEXANDRIA VA 22314-2805

BERCK, K

ART UNIT

PAPER NUMBER

2879  
DATE MAILED:

08/15/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/287,190

Applicant(s)

ASANO ET AL.

Examiner

Ken A Berck

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 1999.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 12 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.                      6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to a plasma display panel, classified in class 313, subclass 586.
- II. Claim 12, drawn to a method for forming a phosphor screen, classified in class 427, subclass 68.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case a phosphor screen can be formed by coating a pigment dispersion composition on an inner surface of a plate, wherein the pigment dispersion composition comprises:

0.5 to 50% by weight, relative to the total pigment dispersion composition, of an inorganic pigment, an anionic ammonium salt dispersant, a nonionic dispersant selected from the group consisting of a polyoxyalkylene alkylether, a polyoxyethylene nonylphenylether and a polyoxyethylene sorbitanmonolaurate, and water or a solvent miscible with water, thereby forming a pigment dispersion composition film coating, further coating a solution containing a photoresist on the pigment dispersion film coating, thereby forming a photoresist solution film coating; and exposing and

Art Unit: 2879

developing the photoresist solution film coating via a mask pattern, thereby patterning the pigment dispersion film coating and the photoresist solution film coating at the same time.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Chuck Wendel on 8-7-01 a provisional election was made with traverse to prosecute the invention of a plasma display panel, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claim 12 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The

Art Unit: 2879

abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it exceeds 150 words and is not limited to a single paragraph on one sheet of paper. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: On page 16, paragraph 2, line 4, "...in the direction of the liens..." is assumed to be --in the direction of the lines--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasao et al. (US 6,242,860).

Sasao discloses (fig 1) a plasma display panel having a front plate (10) and a back plate (20) parallel to and facing each other having a space there between for a discharge gas, plural pairs of display electrodes (13X and 13Y) for surface discharge on

Art Unit: 2879

the front plate parallel to each other, with each display electrode pair comprising a sustain electrode (11) and a bus electrode (12), a dielectric layer (14) covering the display electrodes, and a protective film (15) overlying the dielectric layer, address electrodes (A1-A3) on the back plate at right angles to the display electrode pairs, and a dielectric layer (22) covering the address electrodes, and linear ribs (23) located between the address electrodes, with phosphor layers (24R, 24G and 24B) located between the adjacent linear ribs so that they each extend intermittently in the lengthwise direction of the ribs for each pixel.

Claims 1-2, 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueoka et al. (US 6,084,349).

Ueoka discloses (fig 3) a plasma display panel having a front plate (22) and a back plate (21) parallel to and facing each other having a space there between for a discharge gas, plural pairs of display electrodes (22b and 22c) for surface discharge on the front plate parallel to each other, with each display electrode pair comprising a sustain electrode (22b) and a bus electrode (22c), a dielectric layer (22e) covering the display electrodes, and a protective film (column 8, lines 45-50) overlying the dielectric layer, address electrodes (21b) on the back plate at right angles to the display electrode pairs, and a dielectric layer (21c) covering the address electrodes, and linear ribs (column 8, lines 44-45) located between the address electrodes, with phosphor layers (21d) located between the adjacent linear ribs so that they each extend intermittently in the lengthwise direction of the ribs for each pixel. Also linear shield layers (22f) on the

front plate parallel to each other, located between an adjacent display electrode pair to be parallel to the display electrode pairs.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasao et al in view of Ueoka et al.

Sasao discloses all of the above claim limitations as well as a red-emitting phosphor layer, a blue-emitting phosphor layer and a green-emitting phosphor layer adjacent to each other with a rib there between and these three different phosphor layers each extending intermittently in the lengthwise direction of the ribs.

Sasao fails to clearly point out the dielectric layer being dark in color and containing a dark pigment.

Ueoka discloses (column 8, lines 40-44) black inorganic pigment being mixed into the dielectric paste, and the dielectric layer being black to prohibit incident light from reflection, and to improve the contrast of an image formed on the display area.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display having the dielectric layer of Sasao with the black inorganic pigment being mixed into the dielectric paste, and the dielectric layer

Art Unit: 2879

being black to prohibit incident light from reflection, and to improve the contrast of an image formed on the display area, as taught by Ueoka.


### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

  
NIMESHKUMAR D. PATEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

kab   
August 11, 2001